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GERMANY (RUSSIAN ZONE)

SCIENTIFIC

Current developments in the Werk fuer

Fernmeldewesen HF (formerly Oberspreewerk)

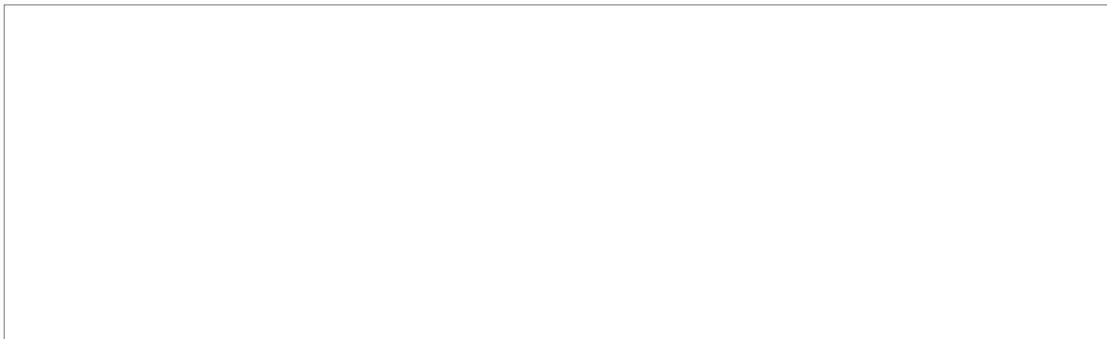
1. Valve Production

[ ] details of the types and quantities of valves manufactured in the months February to June 1951, and planned for manufacture during the third and fourth quarters of 1951. 50X1-HUM

2. In mid-July a request was received from the U.S.S.R. for the manufacture before the end of 1951 of an additional of 17,000 metal ceramic valves, viz. 7,000 of type LD 11, 6,000 of type LD 12, and 2,000 of each of the types LD 7 and LD 9. The factory refused this order but guaranteed that an extra thousand of each type above the originally planned numbers could be manufactured by the end of 1951 if an order to this effect were placed immediately, and the whole order for 17,000 valves could be completed by the end of 1952 if an order for them were placed by 1st October 1951.

3. (a) Production of valves is seriously threatened by the shortage of vacuum pumps. For instance 40 pumping systems are required for the television tube programme, working three shifts. There are 20 available in the factory of which about 12 are usually in working order at any one moment. Three more will be made available from 1st August for this programme by the Department for Special Valves, which will then start working three shifts on its remaining pump systems.
- (b) There is one 48-tube automatic valve making machine in the factory of which 8 tubes are now out of action owing to low vacuum. This machine runs day and night the whole year, apart from the time between Christmas and New Year when it is overhauled.
- (c) "Vorpumpen" are being built into another old and unserviceable 36-tube automatic valve making machine which was transferred to the factory from GERNSDORF some years ago, but a "Zwoelfling" is required before this machine can operate.

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4. The Sachsenwerk RADEBERG is still insisting on the delivery by the Werk HF of 40,000 sets of valves for the T.2 television receivers by the end of 1951. The Werk HF has actually delivered 7,000 sets valves by the end of June. RADEBERG is now ~~complaining~~ complaining that completion of television sets is held up by the failure of the Werk HF to deliver valves, and visitors to RADEBERG confirm with astonishment that series production of the sets appears now to be running satisfactorily.

5. The urgency of the RADEBERG order for valves for television sets has led to conflict between the Russian and German officials of the Werk HF. The Russians demand that 5,000 sets of valves (100,000 valves) should be despatched each month, although the capacity of the available machinery is only about 3,500 sets per month (85,000 valves if no stoppages occur) if three shifts are worked. Special shifts consisting of Directors and clerical staff have been working on the packing and despatch of valves, which has led to a break-down in the system of testing and accounting for despatched valves- on one occasion a batch of incomplete valves made as a test run were despatched by mistake. 50X1-HUM

6. The Werk HF has agreed not to manufacture any valves of types A. and C. in future. Phonetika, BERLIN, will be the only factory in the Russian Zone which will make these valves.

7. SAG Kabel has instructed the Werk HF to plan for the manufacture during 1952 of 60,000 cathode ray tubes and 2.4. Million other valves.

8. The target figure of 2,000 "Blattschreiber" for the year 1951 has been reduced to 100, because of the television tube programme. The Werk HF is however to supply the necessary tools to VVB RPT, who are to manufacture the remaining 1900.

9. Production statistics for the factory in the first half of 1951 are as follows:-

First Quarter 1951 - 114% for the whole Werk HF

Second Quarter 1951 - 110% for the whole WERK HF, being

85%	for radio valves
118%	for special valves
122%	for wire drawing
144%	for instruments and apparatus
and 44%	for other sections

(quarz etc).

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10. The Elektrochemisches Kombinat BITTERFIELD has agreed to supply the following chemicals, supplies of which were uncertain:-

- a) Very pure aluminium. This will be made into aluminium foil by the Elektrochemisches Werk AMMERDORF, and used by the Werk HF for the manufacture of FN-iron. Dr. SEHNER, of the Werk HF, has designed a small mill which makes about 7 kg of FN-iron per diem. This quantity suffices for the P.50 television tubes. This step was forced on the Werk HF by the refusal of the usual suppliers in TRIER (West Germany) to send any further supplies.
- b) Zirconium powder. BITTERFIELD will supply about 10 kg per annum. The Werk HF holds at present stocks sufficient until October only.
- c) Boron carbide. This is required for the Ignitron a valve used in large welding plants.

11. Instruments and Apparatus

Work on the development of the 2 KW television transmitter, which is to be developed later into a 10 KW transmitter, is held up by the non-existence of a suitable control valve. The OSW 2730 valve designed for use in this transmitter requires a control valve with a larger driving power (Steuerleistung) than that of the most powerful available. A control valve with 250 Watt driving power is being developed now to fill this gap. Development work is also in progress on a tetrode (screened grid) which should be ready by the end of this year. Development work on the TV transmitter itself cannot start before these two valves are ready. A further difficulty is caused by uncertainty whether the TV transmitter should be designed for use on the frequency at present used in West Germany, or whether the frequency of the T.2. TV receivers will be used.)

12. of the VHF (ca. 2 m.) FM motor-vehicle intercommunication system for the police: In late July, Dr. SCHOLZ presented to the police in LEIPZIG for inspection the prototype 200 Watt parent station and one 10 Watt out-station. The police rejected the sets as unsatisfactory because they were too selective (too great a "Frequenzhub") to be of use. This means that the sets will have to be redesigned completely: It is intended to base the new sets on the design of the Siemens police intercommunications system, plans of which are held by the factory.

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1. ( No progress has been made on the design of the radio-sonde because there is no suitable person free. It is however possible that Dr. Boehm will accept the commitment. The Phonetika tube factory is manufacturing a small number of 2 volt battery triodes (KCOZ) which could be used in the radio-sondes. )
  2. About 115% of the total for all types of valves planned for 1950 was attained. All the 12 inch tubes planned were manufactured, and a few prototype 9 inch tubes. The series of 50 TV receivers ordered by the USSR were made, but it is believed that they are still in store because no despatch instructions have been received.
  3. ( The broadband 3 cm. transmitter is being tested between the tall and short towers in the grounds of the Werk HF. Truley (returner from the USSR) is in charge of the work. The tests are mainly modulation tests using speech. )
  4. ( It has been decided that the available tube types are not suitable for use in the planned VHF receiver. New types  are being developed which will work down to 1 meter. The set must wait for the completion of these tubes. )

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